

APPENDIX A

MEMP ENVIRONMENTAL MANAGEMENT SYSTEM STANDARD AND REVIEW GUIDE

MISSOURI DEPARTMENT OF NATURAL RESOURCES

Missouri Environmental Management Partnership

MISSOURI ENVIRONMENTAL MANAGEMENT SYSTEM STANDARD AND REVIEW GUIDE

INTRODUCTION

This document presents the standards that the Missouri Department of Natural Resources (the department) staff will apply during on-site assessments and other reviews of the Environmental Management System (EMS) developed by an organization for participation in the Missouri Environmental Management Partnership (MEMP). A secondary use of this document is to serve as a guideline for an organization developing and maintaining an EMS to understand the factors the department will consider and apply in review of their program.

The MEMP is the program through which the department encourages businesses, local governments, educational institutions, not for profit organizations, farms, state agencies and other organizations to improve their environmental performance by developing and implementing an EMS. An EMS is an organized, voluntary and coordinated process of planning activities, responsibilities, procedures and resources for developing, implementing and maintaining an environmental policy.

MEMP includes four classifications of EMS. Included are a basic EMS, a third party certified EMS, an EMS with characteristics that go beyond basic EMS and current regulatory requirements, and an EMS that has all of the characteristics. The four classifications are: Partner, Certified Partner, Advanced Partner and Certified Advanced Partner.

An organization that participates as a Partner in the MEMP must document conformance with the ten basic elements of an EMS, and demonstrate consistent and on-going implementation of the EMS accepted by the department. The EMS must be documented at the outset through the MEMP application. The Partner criteria are based on self-verification and the organization must provide annual documentation of conformance with all ten elements to the department. The department may perform in facility assessments and other reviews to verify EMS implementation.

The ten basic elements of a MEMP Environmental Management System are:

1. Environmental Policy Statement
2. Environmental Impacts
3. Legal and Other Requirements
4. Objectives and Targets
5. Roles and Responsibilities
6. Record Keeping and Reporting
7. Training
8. Emergency Response
9. Assessment
10. Corrective Action

The elements are fully described later in this document.

In order for an organization to qualify as a Certified Partner in the MEMP, all requirements of the Partner classification must be met. In addition a Certified Partner must be certified to ISO 14001 or another credible EMS standard that includes third-party certification. The department will review and verify the certification.

To be an Advanced Partner in the MEMP, an organization must meet all of the requirements of the Partner classification. Further, the organization must satisfy the following:

- The organization must have defined objectives that specify environmental standards more protective than those in applicable legal requirements; this is sometimes referred to as performance based or beyond compliance;
- As part of its commitment to and demonstration of continual improvement of its environmental performance through its EMS, the organization must advance along the waste management hierarchy (reduce, reuse, recycle, effectively treat, safely dispose) with an end result of pollution prevention (source reduction);
- The organization must provide, on an annual basis, a written report of performance assessment results to the department;
- The organization must regularly communicate with and seek feedback from the local community and its other stakeholders on performance assessment results and the status of the EMS.

A Certified Advanced Partner in the MEMP is one that fulfills all of the requirements of the other three classifications. That is, the organization's EMS conforms to the ten basic MEMP elements, is certified by an approved third party, and includes the program elements required for an Advanced Partner.

Definitions

Continual Improvement: The process of on-going enhancement of the environmental management system to better overall environmental performance in line with the organization's environmental policy.

Criteria: Standards upon which a decision or judgment is based; parameters to which the applicant's EMS elements are compared to determine acceptability.

Document: Any photographic or written record, paper or electronic, which may be used to determine acceptability.

Documentation: One or more documents used in determining acceptability.

EMS: An EMS is an organized, voluntary and coordinated process of planning activities, responsibilities, procedures and resources for developing, implementing and maintaining an environmental policy.

Environmental Policy: A documented statement by the organization of its intentions and principles in relation to its overall environmental performance which provides a general course of action and a framework for the setting of its environmental objectives and targets.

Environmental Impact: A beneficial or adverse effect on the environment wholly or partially resulting from an organization's activities, products or services.

Environmental Issues: Conditions or situations associated with an organization's operation that may relate to its environmental impact, compliance status, employees or community.

Environmental Objective: A positive outcome or condition, arising from the environmental policy and related to significant impacts, issues and legal requirements, that an organization sets itself to achieve in accord with a specified time schedule, and which is quantified where practicable.

Environmental Target: Detailed output or performance requirement, quantified where practicable, that arises from an environmental objective and needs to be accomplished in order to achieve that objective.

Organization: A company, corporation, enterprise, association, authority, agency or other entity, whether incorporated or not, private or public, that has a recognized purpose and function.

Pollution Prevention: The use of materials, processes or practices that reduce or eliminate the creation of pollutants or wastes at the source. It includes practices that reduce the use of hazardous or nonhazardous materials, energy,

water or other resources as well as those that protect natural resources through conservation or more efficient use.

Similar words and terms are defined in other EMS programs and standards. If generally consistent with the preceding definitions, they are acceptable for use in MEMP EMSs. Note that the ISO 14001 definition of “prevention of pollution” is not to be interchanged with the above definition of “pollution prevention”.

EVALUATION STANDARDS

Standards of acceptability for each element of the four MEMP classifications are presented in the following sections. The sections present:

- The element title,
- The element statement,
- The requirements for minimum acceptability of element.

If any one of the minimum requirements for any of the elements is not fulfilled, the EMS will not be considered as conforming to MEMP program provisions. Certain EMS components are not required for each EMS classification. These are indicated in the descriptions of the requirements for acceptability. While the elements are described individually, the EMS should tie the 10 elements together in a way that ensures that they function as a coordinated system, not a collection of separate and independent elements.

The possible environmental impacts that an organization must evaluate include, but are not limited to: air emissions and pollution, hazardous and solid waste generation, liquid waste generation, drinking water production and use, water contaminant release and water pollution, surface and subsurface land disturbance, energy usage, storage of gaseous solid and liquid materials, accidental release or spill potentials, the toxicity of materials or products and transportation related issues. As part of the commitment to continual improvement of environmental performance through the EMS, an organization shall work to develop and provide products or services that have minimal environmental impact in their production and their use, are safe when used as intended, are efficient in their consumption of energy and natural resources when used, and can be reused, recycled, or treated or disposed of safely. This element of the commitment to continual improvement of the EMS should be an environmental policy concept or longer-term objective for Partners and Certified Partners; it should be reflected in one or more of the objectives of Advanced Partners and Certified Advanced Partners.

1. ENVIRONMENTAL POLICY STATEMENT

The organization must have prepared a written statement of its policy regarding environmental issues, including impact on the environment, adherence to applicable statutes, regulations and permits, and commitment to continual improvement of environmental performance through its EMS.

Requirements for Acceptability

- 1.1 The policy has been established by top management in the organization or operating unit. This is typically demonstrated by a dated signature of the appropriate manager on the policy document itself accompanied by information or a title that describes the manager's scope of authority.
- 1.2 The policy is appropriate for the organization, and encompasses its activities (e.g. manufacturing, service and products) and the breadth of its

environmental impacts. The policy must “fit” the organization in terms of scale or scope, address all impacts including the possibility of unrecognized ones, and not state or imply exclusions (for example, covers all environmental issues except for hazardous waste).

- 1.3 The policy states that the organization, on an on-going basis, will advance the EMS toward higher and fuller levels of environmental achievement and performance.
- 1.4 The policy must commit the organization to compliance with applicable environmental statutes, rules and permits. The Advanced Partner EMS and the Certified Advanced Partner EMS must call for performance levels more protective than those required by applicable legal requirements.
- 1.5 The policy provides an orientation and direction for the overall EMS, and is the frame of reference for its objectives and targets.
- 1.6 The policy should be maintained as a written or electronic document.
- 1.7 Availability of the policy to all employees is a positive characteristic of the Partner EMS; it is required for the Certified Partner EMS, the Advanced Partner EMS and the Certified Advanced Partner EMS. Whether and how the policy is available to employees is to be determined during assessment and review.
- 1.8 Availability of the policy to the public is a positive characteristic for the Partner EMS; it is required for the Certified Partner EMS, the Advanced Partner EMS and the Certified Advanced Partner EMS. Whether and how the policy is available to the public is to be determined during assessment and review.

2. ENVIRONMENTAL IMPACTS

The organization must have evaluated the actual or potential impacts on the environment from current or near future activities and conditions and must have defined procedures to direct activities relative to environmental impacts.

Requirements for Acceptability

- 2.1 The critical requirement is comprehensiveness in relation to the organization’s activities, products, services, facility location(s) and materials being transported, produced, used and stored, and its use of air, land, water and energy resources. Not every environmental impact is significant in terms of its likelihood, severity or potential severity, scale and frequency. However, this component of the EMS must demonstrate that a comprehensive evaluation of the organization’s effects, and potential

effects, on environmental quality has been conducted. This includes conditions that exist because of past activities.

- 2.2 Omission of environmental impacts that seem obvious or logical to the department reviewer, given the organization's activities, products, services and facility location(s), is sufficient basis to seek clarification and amplification from the organization.
- 2.3 As part of the evaluation of environmental impacts, using a comparative process, the organization shall determine which of the impacts have greater significance or other features that cause them to have priority to be addressed in near-future actions. The basis for determining significance and priority should be outlined in the procedures related to environmental impacts.

3. LEGAL AND OTHER REQUIREMENTS

The organization must have identified the legal requirements for its operations, including relevant environmental laws, regulations and permits, and have a process for tracking any changes in these requirements.

Requirements for Acceptability

- 3.1 The organization has considered and identified its legal requirements that may result from all federal, state and local environmental statutes, laws and ordinances and related rules, regulations and permits.
- 3.2 The organization should have a process for tracking any changes in the legal requirements and their applicability to the organization. A desirable characteristic of the tracking process for the Partner EMS is that it is proactive in how it accesses and identifies legal requirements. The tracking procedure for the Certified Partner EMS, the Advanced Partner EMS and the Certified Advanced Partner EMS must be proactive in accessing and identifying legal requirements and must have a method of communicating legal requirements to employees.
- 3.3 If an organization adheres to the standards and accepted practices of a business, industry or professional association and references these in its MEMP EMS, as part of its assessment review, the department will request copies of the standards and take them into account during the review.

4. OBJECTIVES AND TARGETS

The organization must have established positive objectives relevant to the significant environmental issues and impacts and to the legal and other requirements. The organization also must have established targets necessary for achieving the stated objectives. A documented procedure for review and update of objectives and targets, as well as for establishing new objectives and targets, must be in place.

Requirements for Acceptability

- 4.1 The objectives and targets must be consistent with the environmental policy including the twin commitments to compliance with legal requirements and to continual improvement of the EMS. For the Advanced Partner EMS and the Certified Advanced Partner EMS, the organization must have defined objectives that specify environmental standards and targets more protective than those required by applicable legal requirements.
- 4.2 The objectives are the overall goals of the EMS and must reflect the significant environmental impacts and legal requirements. In view of the commitment to continual improvements of the EMS, an organization does not need to address all of the identified environmental impacts and legal requirements in the initial EMS or in its periodic assessments and annual documentation of conformance.
- 4.3 The MEMP EMS should have an overall objective of compliance with legal requirements on an on-going basis. The organization should have a process for identifying violations of legal requirements, communicating the existence of a violation to appropriate employees and managers, and initiating prompt and effective corrective action. The existence of a violation that is not the subject of a corrective action process is sufficient basis for a determination of nonconformance with the MEMP EMS.
- 4.4 The organization should have a documented procedure for review and update of the objectives and targets and establishing new objectives and targets. The procedure also should encompass re-evaluation of existing, or identification of new environmental impacts and legal requirements, and an occasional review of the environmental policy to assess its continuing appropriateness.

5. ROLES AND RESPONSIBILITIES

The organization must have defined those employee roles primarily responsible for implementation of the EMS and must have defined the responsibilities, accountabilities and authorities of each role in the organization that has involvement in the EMS.

Requirements for Acceptability

- 5.1 Top management should commit to providing the necessary staff, training, technology and financial resources essential for implementation of the EMS.
- 5.2 Top management should assume or delegate responsibility for implementation of the EMS.
- 5.3 EMS responsibilities by specific position in the organization should be documented. This can be in the form of position descriptions, organization charts that indicate types and levels of responsibilities and reporting relationships, or similar documents.
- 5.4 An individual employee, or several specific employees, irrespective of other duties, should be responsible for:
 - 5.4.1 Ensuring full implementation of the EMS,
 - 5.4.2 Internally communicating about EMS performance to other employees,
 - 5.4.3 Reporting on EMS performance to top management,
 - 5.4.4 Documentation of EMS performance,
 - 5.4.5 Receiving and responding to communications about the EMS and documenting the communications, and
 - 5.4.6 Serving as the point(s) of contact between the organization and the department about the EMS.
- 5.5 Top management, or the employee(s) responsible for EMS implementation, should assure that all employees are aware of the environmental policy. A procedure for internal communication of the environmental policy should be in place. This is a positive characteristic of the Partner EMS and a requirement for the Certified Partner EMS, the Advanced Partner EMS and the Certified Advanced Partner EMS.
- 5.6 Top management, or the employee(s) responsible for EMS implementation, should assure that all employees who are actively involved in carrying out EMS activities receive training appropriate for, and are able to competently perform, their roles and responsibilities. The ability to effectively accomplish EMS responsibilities should be a part of the overall evaluation process of employees.

- 5.7 Organizations with Advanced Partner EMS and Certified Advanced Partner EMS should indicate who is responsible for external communication about EMS performance and status to the organization's local community and other stakeholders.

6. RECORDKEEPING AND REPORTING

The organization must have documented processes for the collection and documentation of information about its operating procedures related to the implementation of the EMS.

Requirements for Acceptability

- 6.1 The organization should have processes and procedures (e.g. standard operating procedures) related to implementation of all EMS elements. This includes the procedures for documenting EMS activities and outcomes, and procedures for maintaining the documentation in a manner that can be readily retrieved and is protected from damage or loss.
- 6.2 6.2 A critical element of the record keeping, or documentation, procedure should be a description of how the organization identifies external and internal documents and records staff and management need to fulfill their EMS roles and responsibilities.
- 6.3 The organization's record keeping and reporting procedures must address control of documents so that:
- 6.3.1 They can be located
 - 6.3.2 They are periodically reviewed and revised and accepted for continuing use.
 - 6.3.3 Current versions of necessary documents are readily accessible when and by whom they are needed;
 - 6.3.4 Out-of-date documents are positively removed from use in all locations;
 - 6.3.5 Out-of-date documents to be retained for legal, historical or knowledge preservation purposes are suitably identified and archived (i.e. separated from the active files); and
 - 6.3.6 Documents that are necessary for EMS implementation and are also confidential business records are so identified and any restrictions on access are specified.
- 6.4 The specification by the organization that many EMS-related documents, or the other documents essential for determining EMS progress, are confidential business records is sufficient basis to stop review of the MEMP EMS and seek clarification and reconsideration by the

organization. The inability of the department to document nonconformance with the MEMP EMS does not constitute conformance.

- 6.5 EMS documentation may be maintained as paper or electronic records or a combination of both.

7. TRAINING

The organization must have a process for ensuring that employees are familiar with the requirements of the EMS and have the training necessary to capably execute their roles and responsibilities.

Requirements for Acceptability

- 7.1 The organization should identify and provide, on an on-going basis, appropriate training to ensure:
- 7.1.1 General knowledge of the environmental policy and EMS components throughout the organization, and
 - 7.1.2 Accomplishment of the EMS components by employees with primary roles and responsibilities.
- 7.2 The organization should have documented processes indicating how:
- 7.2.1 Employees training needs are identified,
 - 7.2.2 A training plan is developed to address both general information needs and detailed, targeted needs of specific individuals or groups,
 - 7.2.3 The training plan is carried out (personnel, responsibilities and training timetables specified),
 - 7.2.4 Record-keeping of training and attendance is maintained, and
 - 7.2.5 The training is evaluated and updated to assure on-going appropriateness.
- 7.3 If the organization employs contractors or temporary employees, their potential training needs related to the EMS should be addressed in the training plan.

8. EMERGENCY RESPONSE

The organization must have documented procedures for responding to, mitigating and reviewing incidents or environmental emergencies.

Requirements for Acceptability

- 8.1 Documentation should be maintained that demonstrates how the organization has reviewed its risks for uncontrolled releases of hazardous materials, process wastes or other environmental contaminants to air, water or land and has emergency plans and procedures established to ensure an appropriate response.
- 8.2 The organization should identify and address requirements related to:
 - 8.2.1 Coordination with local first responders, fire fighters and the Local Emergency Planning Commission (LEPC),
 - 8.2.2 Emergency Planning and Community Right to Know requirements,
 - 8.2.3 Section 112(r) Risk Management Planning pursuant to the Clean Air Act Amendments of 1990, and
 - 8.2.4 Spill prevention, control and counter measures (SPCC) requirements of the Federal Oil Pollution Control Act, and
 - 8.2.5 RCRA requirements per hazardous waste classification, and
 - 8.2.6 Other environmentally related spill and emergency response procedures.
- 8.3 The organization should have a plan for and a general schedule of periodic tests of the emergency response plan and procedures.
- 8.4 The organization should periodically review and determine the continuing appropriateness of its emergency response procedures.

9. ASSESSMENT

The organization must have documented procedures and a schedule for assessments of the function and effectiveness of and conformance with the EMS, including applicable legal requirements.

Requirements for Acceptability

- 9.1 The organization should have a system in place for monitoring and measuring performance related to the objectives and targets. The system description should address the types of data to be collected, how data accuracy and reliability will be assured, and the data maintenance and dissemination procedures
- 9.2 The system for monitoring and measurement should describe personnel roles and responsibilities, methods of accomplishment (e.g. internal audit, external audit or both) and frequency of specific assessment events. For the Certified Partner EMS and the Certified Advanced Partner EMS, information should describe the role of the third-party certification organization, and summary records (not necessarily the detailed audits

and reports) of the third-party certification organization should be available to the department.

10. CORRECTIVE ACTION

The organization must have documented processes for review of and reaction to assessment information, investigation of any identified nonconformance with the EMS, and action to correct or address the nonconformance.

Requirements for Acceptability

- 10.1 Procedures should describe the methods and the frequency with which organization management, including top management, will review performance related to the EMS objectives and targets.
- 10.2 Procedures should indicate how organization management, including top management, will review and respond to the result of external audits conducted by third party certification organizations for Certified Partner EMS and Certified Advanced Partner EMS.
- 10.3 Procedures should indicate how the organization will determine and track conformance with the objectives, targets and the other EMS elements, and identify nonconformance.
- 10.4 Responsibilities of employees to initiate corrective actions related to nonconformance with the EMS elements prior to full management review and reaction to the nonconformance should be documented.

11. GENERAL REQUIREMENTS FOR ACCEPTABILITY

- 11.1 For the Partner EMS and the Certified Partner EMS, annual reporting must document conformance with the ten basic EMS elements. For the Advanced Partner EMS and the Certified Advanced Partner EMS, annual reporting must provide a written report of the performance assessment results of internal and external EMS audits or other evaluations.
- 11.2 For the Advanced Partner EMS and the Certified Advanced Partner EMS, as part of the MEMP application and the annual reports, the organization should submit information describing how, and with what frequency or under what circumstances, it regularly communicates with its local community and other stakeholders on performance assessment results and the status of the EMS.
- 11.3 The EMS must reflect or explicitly reference the waste management hierarchy, which, beginning with the most desirable, may be stated: reduce, reuse, recycle, effectively treat, safely dispose. "Reduce" is also

termed reduction, source reduction, waste minimization and pollution prevention (P2), and sometimes includes waste reuse that occurs in the facility in which the waste was generated. For the Partner EMS, the environmental policy and EMS does not need to call for immediate or near future progress along the waste management hierarchy beyond safe disposal and effective treatment. For the Certified Partner EMS, the environmental policy and EMS should reflect appropriate use of a full range of waste management and control options under the waste management hierarchy. For the Advanced Partner EMS and the Certified Advanced Partner EMS, the environmental policy and EMS should commit the organization to an end result of pollution prevention as a primary and current, or near-future, component of its waste management strategy and processes.

- 11.4 Documented procedures related to the EMS shall outline how top management will periodically review the overall content and structure of the EMS to ensure its continuing suitability and effectiveness. The management review shall address all elements of the EMS taking into account assessment results, changes in the organization's situation, viewpoints of the local community and stakeholders and other factors.